

## REMARKS

In the final Office Action dated May 7, 2003, claims 1-9, 23-38, 40-42, 44, 45 and 47 were rejected. These rejections are respectfully traversed. Upon entry of this Response, claims 1-10 and 23-38, 40-42, 44, 45 and 47 are pending and under consideration in the present application. Applicant notes that claim 10 was erroneously omitted by the Office on the list of pending claims and was further not included in the rejections set forth by the Office. Applicant did not cancel or amend claim 10 in any previous response. As such, claim 10 is currently pending.

### *I. Withdrawal of Claims by the Office*

The Office withdrew claims 39, 43, 46 and 48-62 as drawn to a non-elected invention. The Office asserts, "since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits." (Office Action mailed May 7, 2003, page 2). This withdrawal is respectfully traversed.

Applicant respectfully points out that new claims 39, 43, 46 and 48-49 were submitted in response to the objection set forth in the Office Action mailed September 12, 2002. The Office objected to original claims 5-9 and 11-22 as being multiply dependent claims that depend from another multiply dependent claim. To expedite prosecution, claims 4-9 were amended. The new claims 23-49 correspond to the original claims 4-9 and were added to correct any improper multiple dependencies. Specifically, new claims 39, 43, 46 and 48-49 claim a sebocyte that is cloned, and correspond to original claim 9, which remains pending and also claims a sebocyte

that is cloned. Thus, the subject matter of new claims 39, 43, 46 and 48-49 was contained in the original multiply dependent claims.

The Office also rejected claims 11-22 as allegedly reciting a use without setting forth any steps involved in the process in violation of 35 U.S.C. § 101. To expedite prosecution, claims 11-22 were cancelled and new claims 50-62 were added. New claims 50-62 correspond to original claims 11-22.

In view of the above, it is submitted that the withdrawal of claims 39, 43, 46 and 48-62 as drawn to a non-elected invention is improper and withdrawal of the restriction is respectfully requested.

## ***II. Rejections under 35 U.S.C. § 103(a)***

The Office rejects claims 1-9, 23-38, 40-42, 44, 45 and 47 under 35 U.S.C. 103(a) as allegedly made obvious in light of Zouboulis (*Dermatology 196*) or Rosenfield et al., in view of Bryan. This rejection is respectfully traversed.

The Office submits that Zouboulis (*Dermatology 196*) and Rosenfield each teach primary cell cultures of sebocytes taken from facial sebaceous glands. The Office states that Bryan clearly teaches that cells in culture can be immortalized by SV40. The Office concludes that one ordinarily skilled in the art would have a reasonable expectation of success to make an immortalized human sebocyte cell line.

In fact, Applicant submits that at the time of the invention, the immortalization of human epithelial cells with DNA coding for virus proteins was very complicated and difficult. Specialized human epithelial cells like sebocytes were particularly difficult to immortalize. Human sebocytes in the body and in culture are “programmed” to differentiate and die in a short period of time, which makes it difficult to culture even primary sebocytes. Accordingly, although

certain types of cells had been successfully immortalized with the SV-40 large-T antigen coding DNA, the immortalization of sebocytes was not obvious for the skilled person in the art.

In fact, the Applicant performed very difficult and time consuming experiments from 1990 to 1995 in his quest to obtain an immortalized sebocyte cell line. In fact, until Applicant's successful experiments, there were no other immortalized sebocytes available. Moreover, Applicant has received important national prizes for outstanding scientific success for his immortalized sebocytes, which underline the importance and singleness of his invention.

As such, it was unexpected that Applicant could successfully obtain immortalized sebocytes and reconsideration and withdrawal of the rejection of claims 1-9, 23-38, 40-42, 44, 45 and 47 under 35 U.S.C. 103(a) in light of Zouboulis et al. or Rosenfield et al., in view of Bryan is respectfully requested.

### ***III. Rejections under 35 U.S.C. § 102***

#### ***a. Zouboulis et al.***

The Office rejects claims 1-4 and 10 under 35 U.S.C. § 102(a) and § 102(b) as allegedly anticipated by Zouboulis et al. (*J. Inv Derm 113*). This rejection is respectfully traversed. The Zouboulis et al. (*J. Inv Derm 113*) article was published in December 1999. Applicant has filed a certified copy of the applications to which he is claiming priority as required by 35 U.S.C. § 119(b). As such, Applicant's priority date is perfected to February 1, 1999. Because Applicant's priority date is prior to the publication date of Zouboulis et al. (*J. Inv Derm 113*), Zouboulis et al. (*J. Inv Derm 113*) is not prior art and the rejection of claims 1-4 and 10 under 35 U.S.C. § 102(a) and § 102(b) cannot properly be sustained. Reconsideration and withdrawal of these rejections is respectfully requested.

The Office further rejects claims 1-4 and 10 under § 102(f) as allegedly derived by the invention of another as disclosed in Zouboulis et al. (*J. Inv Derm 113*). This rejection is respectfully traversed.

As discussed above, Zouboulis et al. (*J. Inv Derm 113*) was published in December 1999, after Applicant's priority date. M.P.E.P. 2137 states "for a reference having a date later than the date of the application some evidence may exist that the subject matter of the reference was derived from the applicant in view of the relative dates. *Ex parte Kusko*, 215 U.S.P.Q. 972, 974 (Bd. App. 1981)." The Office has not submitted any such evidence that Applicant improperly derived his invention from another. Thus, withdrawal of the rejection of claims 1-4 and 10 under § 102(f) is respectfully requested.

***b. Akerblom et al.***

The Office rejects claims 1 and 4 under 35 U.S.C. § 102(b) as allegedly anticipated by Akerblom et al. This rejection is respectfully traversed. The Akerblom patent issued on August 4, 1998. As detailed above, Applicant's priority date has been perfected to February 1, 1999. Thus, the Akerblom patent does not satisfy the requirements of 35 U.S.C. § 102(b), as the Akerblom patent issued less than 1 year prior to Applicant's priority date of February 1, 1999, and the rejection is made moot.

The Office also rejects claims 1 and 4 under 35 U.S.C. § 102(a) and § 102(e) as allegedly anticipated by Akerblom et al. This rejection is respectfully traversed. The Akerblom patent allegedly discloses the existence of an immortalized adipocyte cell line. Applicant claims a sebocyte cell line. Applicant respectfully submits that adipocytes and sebocytes are completely different cell types, and, as such, the Akerblom patent does not teach or suggest the subject matter of Applicant's claims.

Adipocytes are highly differentiated fibroblasts which can be found throughout the whole body. In contrast, sebocytes are differentiated epithelial cells of the skin and are only located in the skin, not throughout the whole body. Moreover, not only do adipocytes and sebocytes have completely different origins, but sebocytes also produce specific lipids (e.g., squalene and wax esters), which cannot be synthesized by adipocytes. Sebocytes and adipocytes are responsible for completely different functions and diseases, i.e., obesity and cardiovascular diseases (adipocytes) or acne and seborrhea (sebocytes). Finally, it is relatively easy to transfect and immortalize adipocytes, but the transfection and immortalization of sebocytes is very difficult. Thus, the Akerblom patent's alleged disclosure of an immortalized adipocyte cell line does not teach or suggest the very different sebocyte cell line claimed by Applicant, and the rejection of claims 1 and 4 under 35 U.S.C. § 102(a) and § 102(e) in light of Akerblom should be withdrawn. Reconsideration and withdrawal of this rejection is respectfully requested.

### **CONCLUSION**

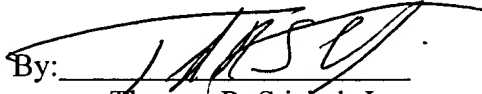
It is respectfully submitted in view of the foregoing Response and remarks that all of the rejections in the final Office Action mailed May 7, 2003, have been overcome and should be withdrawn. Applicant respectfully requests early and favorable notification to that effect.

None of Applicant's amendments are to be construed as dedicating any such subject matter to the public, and Applicant reserves all rights to pursue any such subject matter in this or a related patent application.

The Examiner is encouraged to contact the undersigned with any questions or to otherwise expedite prosecution.

Respectfully submitted,

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